

Service Information

MACHINE TYPE : YS series mounters
SOFTWARE VERSION : V3.25std R1.000 or later
CLASSIFICATION : Installation / Operation

No: SI1012003E-001
ISSUED DATE: 21 April 2011

SS feeder firmware upgrading procedure

This document describes the firmware upgrading of SS feeders and SS feeder carts/plates, also related notes.

While the vision processor or servomotors will be upgraded by simply upgrading the machine application software, SS feeders and feeder carts/plates also require the firmware upgrading.

After upgrading the machine application software, set SS feeders and feeder carts on the machine and upgrade their firmwares using the upgrade utility described herein.

Update history

Service information No.	Updated content	Issued date
SI1012003E-001	Added a warning note about firmware upgrading operation.	21 April 2011

Warning

- This document is intended for service engineers.
- Make sure to use this document under the instruction of those who have completed the maintenance training or a YAMAHA serviceman.
- YAMAHA is not responsible for any problems caused by the misuse of the document.
- This document contains editing of the system data that can affect the customer's machine conditions. Make sure to thoroughly understand the contents of the document, and perform the adjustments on your own responsibility.
- This document contains supervisor-level login password to the machine system. Take extreme care of the password handling.

Safety note

Strictly follow the precautions in the "Safety" section in the user's manual.

Disclaimer

This document contains the preliminary information subject to change in the future.

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SS feeder firmware upgrading

Note

If a new machine is added to the production line or an existing machine is upgraded, be sure to upgrade the remaining machines in the line so that they will incorporate improvements and new features of the upgraded version, and then upgrade the firmware of SS feeders/feeder plates.

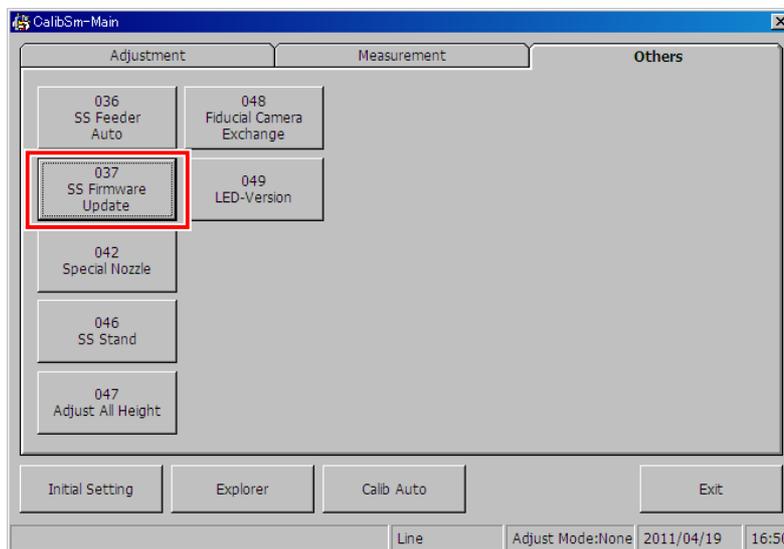
Step 1 Start the CalibSm utility.

Click the [Utilities] button on the left-side of the operation screen.



The CalibSm-Login dialog box appears. Select "Supervisor" from the drop-down list and enter "specialist" as [Password].

Step 2 The CalibSm menu window appears. Open the [Others] tab and click [037 SS Firmware Update].



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Step 3 The SS FirmwareUpdate window appears.

As default [Feeder plate] tab is open indicating firmware versions of the feeder carts/plates. If the machine is designed to use feeder carts but no feeder cart is installed, set the cart on the machine and click the [Display Update] button to update the display.

When you set feeder carts after this window is displayed, click [Display Update] to update the display.

Firmware version

[Required major ver.]
The feeder plate firmware version installed in the machine application software appears.
If you want to install custom firmware, use a USB flash drive to load the custom firmware file to the machine. Click [Refer] to browse for the USB flash drive.

Front			Rear		
No	Major	Minor	No	Major	Minor
1	24	-	3	26	-
2	1	-	4	11	-

Step 4 Check the firmware version of each feeder cart/plate against [Required major ver.].

Normally update the firmware version of all feeder carts/plates to [Required major ver.]. If all the firmware versions and [Required major ver.] are the same, advance to step 7.

When the firmware version is lower than [Required major ver.], the [Major] cell turns red and the firmware is checked for upgrading. When the firmware version cannot be recognized, the [Major] cell turns yellow, but the firmware upgrading is still possible.

Warning: for machine application version lower than V3.24std R2.000

When the [Major] cell remains white (not red-/yellow-highlighted) after clicking the [Display Update] button, the firmware of the corresponding feeder cart/plate need not be updated. Executing [Update Start] in such a case with the checkbox checked or the [All Select] button clicked can downgrade the firmware and the feeder cart/plate could become unserviceable. In the below figure for example, if you check the red circled checkbox and execute [Update Start], the firmware of feeder cart/plate # 3 will be downgraded and the feeder cart/plate could be unserviceable.

Do not select an unhighlighted feeder cart/plate.

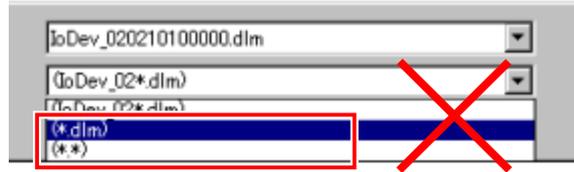
Front			Rear		
No	Major	Minor	No	Major	Minor
1	014	-	3	201	-
2	014	-	4		

Should the above error operation be performed, corrective file needs to be downloaded to the feeder cart/plate. Consult YAMAHA Service for information.

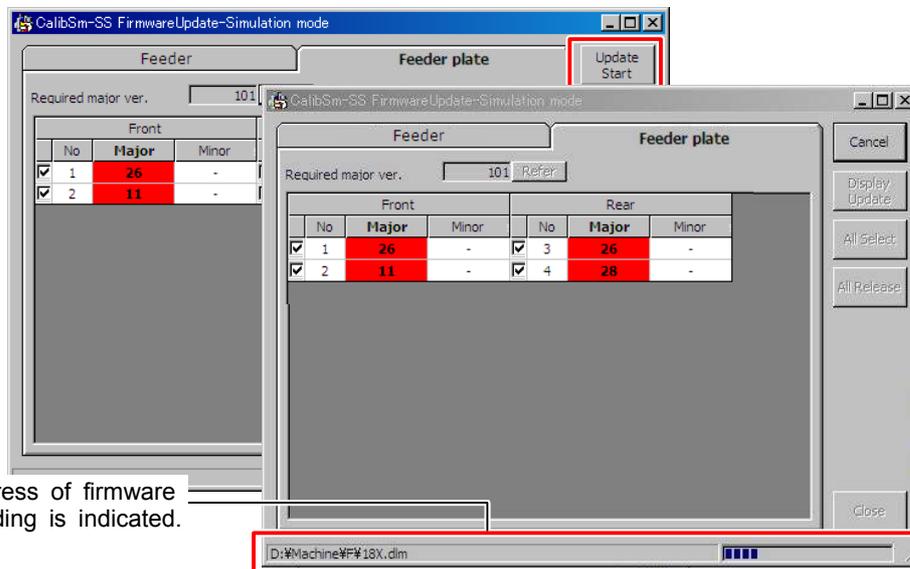
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Warning: for machine application version lower than V3.20std R1.000

If you select a wrong file type ((*.dlm) or (*.*)) for the source firmware file ([SS FirmwareUpdate] dialog box > [Refer] button > [Open a File] window) and execute firmware upgrading, a control board in the feeder cart/plate will fail which requires the control board replacement. Please be sure to select “(IoDev_02*.dlm)” for the file type and Never to select other file type.



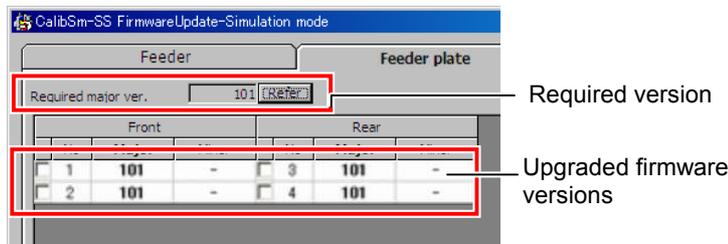
Step 5 Press an Emergency Stop button on the machine. Then click the [Update Start] button. Firmware upgrading starts. The status bar indicates the progress of upgrading.



Note

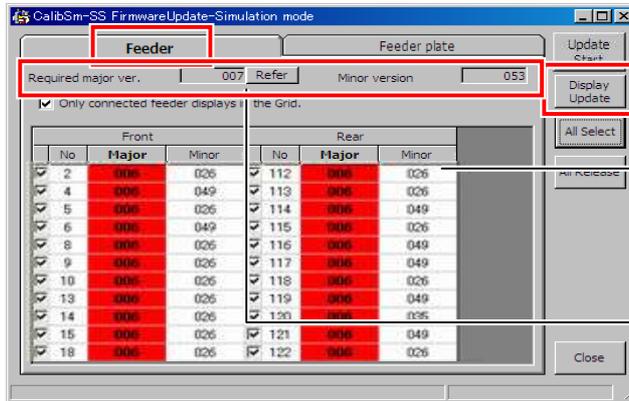
During the firmware upgrading process, the [READY] button on the machine and the clamp switch on the feeder cart are disabled to prevent possible mishandling. Do not attempt to operate the machine operation screen until the upgrading process is complete.

Step 6 Confirm that the firmware upgrading is completed properly. Confirm that the version of all the feeder carts/plates has been upgraded to the required version.



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Step 7 Open the [Feeder] tab.



When you set a feeder after this window is displayed, click [Display Update] to reflect the updated status.

Firmware version

[Required major ver.]
The feeder firmware version installed in the machine application software appears.
If you want to install custom firmware, use a USB flash drive to load the custom firmware file to the machine. Click [Refer] to browse for the USB flash drive.

Step 8 Check each feeder firmware version ([Major], [Minor]) against [Required major ver.].

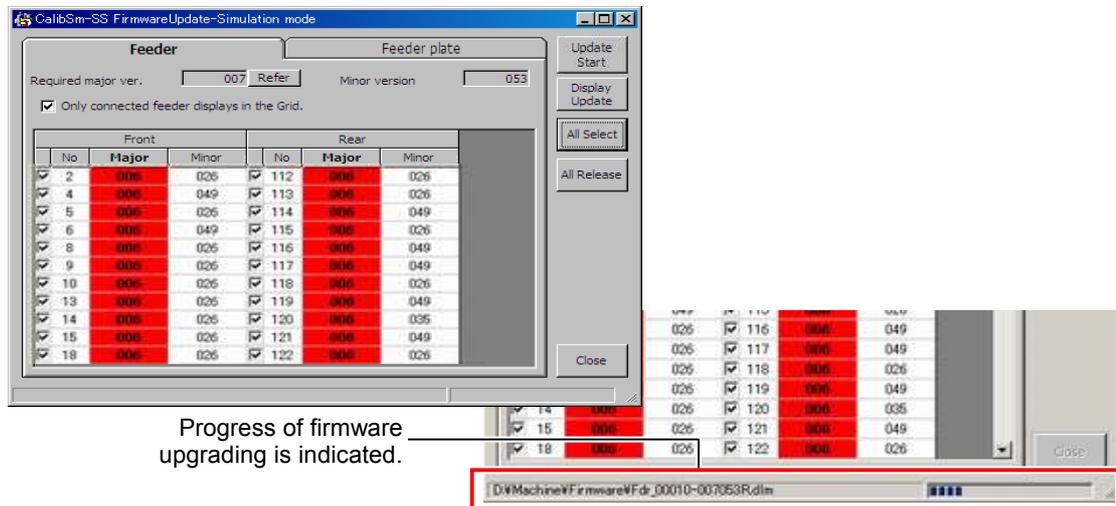
Normally update the firmware of all feeders to [Required major ver.].

When the firmware version is lower than [Required major ver.], the [Major] cell turns red and the firmware is checked for upgrading. When the minor version differs from the required minor version, firmware upgrading is also recommended.

When the firmware version cannot be recognized, the [Major] cell turns yellow, but the firmware upgrading is still possible.

Step 9 Click the [Update Start] button.

Firmware upgrading starts. The status bar indicates the progress of upgrading.



Progress of firmware upgrading is indicated.

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Notes

- During upgrading process, all indicator LED lights of the feeder (red, orange and green) shall blink. If the LED lights of any feeder don't blink during upgrading, the feeder may not be recognized by the machine system. In this case please check the condition of the feeder.
- The firmware upgrading is performed for feeders on one feeder cart/plate at the same time, and then for feeders on the next feeder cart/plate. Therefore if you set feeders collectively on as fewer feeder carts/plates as possible, upgrading time will be saved. Note that 60-lane fixed feeder plate is recognized by the machine system as two 30-lane feeder plates.
- If an error occurs during firmware upgrading, an error message will appear on the screen. In such a case, try the upgrading process several times and you may end in success in some cases. If you cannot succeed, some hardware failure may exist.

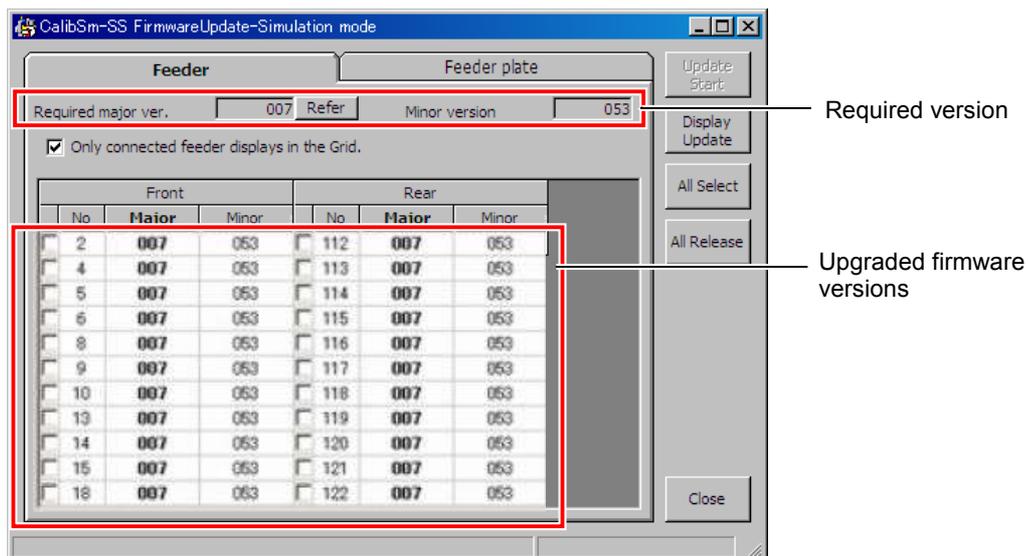
Tips

When feeder firmware upgrading fails:

- Reinstall the feeder, and/or try a different feeder lane to set the feeder.
- If the upgrading doesn't succeed even after repeated retrials, write down the error message given and contact your service representative.

Step 10 Confirm that the firmware upgrading is completed properly.

Confirm that the firmware version of all feeders has been upgraded to the required version.



Step 11 If there are other feeder carts requiring firmware upgrade, replace the feeder cart.

Repeat step 3 through 6 to upgrade the feeder cart's firmware. If the feeder cart is equipped with feeders which require firmware upgrading, repeat step 7 through 10 to upgrade the feeder firmware.

Step 12 If there are other feeders requiring firmware upgrade, set the feeders on the feeder cart/plate and perform firmware upgrading.

Repeat step 7 through 10 to upgrade the feeder firmware.